

# EXHIBIT E

University of Washington  
May 21, 2020 IACUC Meeting Minutes

Members Present:	AW (remote)	GS (remote)	KS (remote)
	CH (remote)	JM (remote)	MB (remote)
	CM (remote)	JPVH (remote)	MK (remote; from 2:37 PM)
	DM (remote)	JS (remote)	ML (remote)
	FRR (remote)	KG (remote)	SRH (remote)
			SL (remote)

Members Absent: AB JA

### Opening Business

- The IACUC Chair called the meeting to order at 2:32 pm.

### Confirmation of a Quorum and Announcement

- Quorum was confirmed by JS.

### Approval of the IACUC Meeting Minutes

- The IACUC Chair called for the approval of the April 16, 2020 meeting minutes.

Motion was made and seconded: to approve the April minutes as written.

Further Discussion: *None.*

Vote: Approved with 15 members voting in favor, 0 against and 0 abstentions.

### Attending Veterinarian's/OAW Director's Report - KS

- Adoptions - 4 gerbils adopted out in the last month.
- OAW Assistant Director is retiring June 15<sup>th</sup> and today is his last IACUC meeting. New Assistant Director will be starting on June 1<sup>st</sup>.
- IACUC metrics- see meeting documents.
- Facility issues:
  - There were 3 ARCF rooms with various lighting issues that were resolved within 1 hour. 2 of the 3 rooms did not have any mice at the time the problem was noted.

### 2:37 PM Member Entered

- Protocol Monitoring:
  - Twenty-one total protocols. Of the protocols, 12 involve surgery, two restraint (and sx), one conscious restraint, 1 tumor modeling, 4 miscellaneous (tape skirt, infection, water quality). Seven are inactive right now. Still minimal work being done on most of these protocols at this time. Work on 2225-06 is being moved to a different protocol (4486-02) under a different PI but it will remain under vet monitoring.

University of Washington  
May 21, 2020 IACUC Meeting Minutes

- Follow-up to previously reported adverse events:
  - ARCF NHP escapee adverse event: The male escapee is still being kept separate from his social partner while reinforcement of the connection between the 2 cages is being finalized. Once the caging is finished, Behavioral Management Services will work on re-introducing the male NHP to his social partner.
  - 4390-01: PI response to Letter of Counsel. As indicated in the letter, the lab believes these rats were given too high a dose of parasites due to human error. Parasites used for infection must be prepared fresh, and therefore the lab cannot establish a laboratory stock of validated inocula. These parasites are quantified by direct visualization and counting under a microscope, and therefore no additional measures can be implemented to ensure proper dosing. The PI has reviewed with the lab member involved the procedures for quantification and inoculum preparation as well as the monitoring requirements detailed in the protocol. The PI will discuss this case with all lab members at their next lab meeting to remind everyone of the proper procedures.
- Adverse Events:
  - ABSL3 facility: One cage of 5 mice was not properly docked in the housing rack after a husbandry staff member changed water bottles in all cages. As a result, airflow was not reestablished when the cage was returned to the rack and all animals in the cage died. Corrective Actions: Moving forward, the ABSL3 facility is requiring, barring extenuating circumstances, that two people work in tandem during pre-scheduled, routine water bottle changes similar to what is already required for pre-scheduled, routine cage changes. Both individuals will be responsible for ensuring that cages are appropriately docked in the rack. The ABSL3 facility will continue with the standard process of visually confirming that individual cages that have been removed from the rack are correctly docked. The responsible individual has been re-trained by both the BSL3/ABSL 3 Facility Director and the Facility Manager.  
**Reported to OLAW.**  
*The AV confirmed that this adverse event was self-reported by the ABSL-3 Facility Manager.*
  - 4187-02: Self-reported. 3 rats had spinal injury surgery on the same day. Two rats died during surgery and one rat was found dead the day after surgery. After surgery the group realized the rats had received an overdose of xylazine. These animals were the anesthetized with a recently acquired bottle of xylazine which was at a higher concentration than normally used. Corrective Action: The lab has implemented a policy of triple checking the concentration of stock drug bottles - once when received, once when the bottle is brought from "in reserve" to "active" status, and every time drug is drawn from the bottle to make a dilution for ketamine/xylazine anesthesia.

**Reported to OLAW.**

*The AV confirmed that this lab does not have a prior history of non-compliances.*

Motion was made and seconded: to send a letter of acknowledgement.

Further Discussion: None.

Vote: Approved with 16 members voting in favor, 0 against and 0 abstentions.

University of Washington  
May 21, 2020 IACUC Meeting Minutes

- At Western facility, 1 NHP was left in a trapping run for at least 12 hours without access to food or water. She was found to be moderately dehydrated, received immediate treatment and recovered by the next day. An investigation revealed that both an AT and a vet tech had seen her in the compound on Saturday morning when she received medication. On Sunday afternoon, a different AT and vet tech saw that she was not in the compound, and looked in the trapping run but did not find her. She was found in the trapping run the next morning. There was no reason to move her into the trapping run on either Saturday or Sunday, and no one admitted to doing so. The doors from the compound into the trapping runs are hydraulic doors whose controls are not accessible to the animals. Corrective Action: Water bottles will be added to those runs so animals always have access to water. HR is handling any possible personnel performance issues related to this event.

**Reported to USDA and OLAW.**

*An IACUC member asked if animals are double-checked at the end of a shift. The vet of the WaNPRC confirmed the use of a log sheet. The IACUC discussed the trapping run size and configuration. The IACUC discussed options for sending a letter to the facility upper management. The IACUC discussed the importance of self-reporting instead of punitive actions held against individuals. The IACUC Chair has tabled the discussion until more information is available.*

- Non-compliances: None
- From Arizona
  - Facilities items: No items to report.
  - Adverse events: No adverse events to report.

**Standard Operation Procedures / Policies / Guidelines**

- Adhesion Grading Scale in Non-Human Primates – **KS**
  - *This policy was updated in format, but there were no other revisions made.*

Motion was made and seconded: to approve the policy as written.

Further Discussion: None.

Vote: Approved with 16 members voting in favor, 0 against, 0 abstentions.

- Prolonged Physical Restraint - **KS**
  - *This policy was updated in format, but there were no other revisions made.*

Motion was made and seconded: to approve the policy as written.

Further Discussion: None.

Vote: Approved with 16 members voting in favor, 0 against, 0 abstentions.

**Other Business**

- WaNPRC Common Use Drug Formulary – **CH**
  - *The WaNPRC has added an NSAID and a magnesium-alternative drug to the drug formulary.*

University of Washington  
May 21, 2020 IACUC Meeting Minutes

Motion was made and seconded: to approve the drug formulary as written.

Further Discussion: *None.*

Vote: Approved with 16 members voting in favor, 0 against, 0 abstentions.

- L-Shaped Housing Variance – **CH**

- *The WaNPRC requests the approval of a housing variance combining cages together in configurations that provide increased vertical space for the animals and more than standard floor space but with part of the space <36 inches (but at least 32 inches) high .*

Motion was made and seconded: to approve the housing variance as written.

Further Discussion: *None.*

Vote: Approved with 16 members voting in favor, 0 against, 0 abstentions.

- COVID-19 updates – **KS**

- Animal care and veterinary staffing has continued to be adequate, and therefore no modifications to husbandry practices have been necessary. Face coverings are required in all animal facilities and maximum capacity signage is posted for all housing and procedure rooms.
- AUTS has resumed rodent hands-on training and facility orientations with limited capacity as all sessions are one-on-one in order to maintain a 6 ft physical distance as much as possible and with appropriate PPE to limit potential exposure. We are currently working through the waitlisted requests. Scheduling of surgery training and surgery certification has resumed and instruction can begin as early as next week.
- Semi-annual inspections: In May, we have been able to inspect some additional procedural lab spaces. The remaining 8 uninspected lab spaces are not currently in use and those labs will be inspected once those areas are back in use.
- IACUC information related to the OAW Return to Work Phase 1 plan and probably additional phases:  
OAW reviewers/liaisons will continue to work remotely.

Most IACUC functions including review and approval of animal use protocols by DMR and monthly IACUC meetings (include public participation) will continue to be carried out remotely.

Review of animal use spaces will continue. Site visits of new research space and of existing animal use spaces will be done in-person.

- A minimum number of IACUC site visitors will be used (although no IACUC member may be denied participation).
- IACUC members will be asked to volunteer for site visits. It is anticipated that IACUC members already on campus for other reasons will mostly be used.
- Proper distancing and room occupancy will be maintained at all times. Appropriate PPE will be worn and hygiene practices followed.
- Vivarium visits will be coordinated with DCM or WaNPRC facility managers.

University of Washington  
May 21, 2020 IACUC Meeting Minutes

- Lab space visits will be coordinated with the PI/lab manager to ensure lab-member availability. Inactive labs may have visits delayed beyond the usual six-month requirement, but will need IACUC re-inspection prior to animals again being used in the space.
- Semi-annual program review – **LI**
  - *LI reviewed the process for the upcoming semi-annual program review. There were no questions.*

**Closing Business:**

The Meeting was brought to a close at 3:36 pm. The floor was opened to public comment.

University of Washington  
July 16, 2020 IACUC Meeting Minutes

Members Present:	AB	SL	KS
	CM	JPVH	MB
	DM	JS	MK
	FRR	KG	ML
	GS	KAG	SRH

Members Absent:	AW	JA	JM
-----------------	----	----	----

### Opening Business

- The IACUC Chair called the meeting to order at 2:30 pm.

### Confirmation of a Quorum and Announcement

- Quorum was confirmed by TN.

### Other Business

- *The Chair explained that we will start to bring in researchers to tell us about their science without calling for FCR. The goal of this new initiative is to ensure the IACUC remains well informed about protocols when FCR is not warranted.*
- Presentation and Discussion on new mouse model - MP/GT  
AMEND202000509 (4283-01)  
*The PI and research team presented an overview of their project using a mouse model that can recapitulate similar symptoms of that in humans infected with Malaria. The committee members asked a few questions relating to their research.*

**2:41 PM Member Entered**

### Approval of the IACUC Meeting Minutes

- The IACUC Chair called for the approval of the June 18, 2020 meeting minutes.  
Motion was made and seconded: to approve the minutes as written.  
Further Discussion: None.  
Vote: Approved with 14 members voting in favor, 0 against and 0 abstentions.

### Attending Veterinarian's/OAW Director's Report - KS

- Adoptions: 1 ferret adopted out in the last month.
- Training program updates – Revised Introduction to Rodent Surgery on-line course is now live.
- IACUC metrics- see meeting documents

University of Washington  
July 16, 2020 IACUC Meeting Minutes

- COVID impacts update: Animal care and veterinary staffing has continued to be adequate, and therefore no modifications to husbandry practices have been necessary.
- Implementation of new rodent CO<sub>2</sub> euthanasia flow rate update: DCM managed spaces are upgrading equipment and plan to have upgrade completed in August. Reminder to site visitors: when visiting lab procedural spaces (outside of DCM managed spaces) where CO<sub>2</sub> is used for euthanasia, check that they have implemented the change in fill rate of 30-70% including appropriate flow meters/flow rate and signage. If not completed, remind the lab about this change, make a note of it and that lab's OAW liaison will follow up to ensure the change gets implemented.
- Facility issues: None
- Protocol Monitoring:
  - Twenty-one total protocols. Of the protocols, 13 involve surgery, two restraint (and sx), one conscious restraint, 1 tumor modeling, 4 miscellaneous (tape skirt, infection, water quality). Seven are inactive right now. Minimal activity but for those doing procedures, the animals are very well. Pilot study involving CHIMERA in ferrets (TBI model): Still finishing data analysis and the plan is to present to the IACUC when completed. No plans to do additional experiments at this time.
- Adverse Events: None
- Non-compliance:
  - 4290-01: Five mice were tail-tipped for genotyping at 6 weeks of age and one mouse was reported to Vet Services for a complication from that procedure. Upon investigation, it was determined that the protocol doesn't include tail tipping in mice older than 28 days of age. The group also did not use anesthesia and analgesia for tail tipping older mice as outlined in the Genotyping in Laboratory Mice policy. The OAW liaison met with the PI to discuss this incident and they reviewed both the IACUC policy on genotyping and the genotyping information currently approved on their protocol. The group has ear punch as an approved tissue collection method and they plan on using this method if mice older than 28 days of age need to be genotyped. It was recommended that all lab personnel review what genotyping methods are approved on the protocol as well as review the Genotyping in Laboratory Mice policy.

**Reported to OLAW.** A Letter of Counsel is recommended.

Motion was made and seconded: to send a letter of counsel.

Further Discussion: *IACUC members asked the Attending Vet how this non-compliance could have occurred. OAW director stated that a change in personnel appears to have contributed to this error.*

Vote: Approved with 13 members voting in favor, 0 against and 0 abstentions.

**3:00 PM Member Entered**

- From Arizona
  - Facilities items: No items to report.



University of Washington  
July 16, 2020 IACUC Meeting Minutes

- Report by interim director of WaNPRC.
  - The Interim Director of the Washington National Primate Research Center (WaNPRC) gave some background and context for new IACUC members and some general updates on changes at WaNPRC. There was also an update on some recent adverse events and information about the development of a more thorough incident response and follow up plan.
  - The PC has had several transition points throughout its history and with recent financial challenges, a task force was put in place in Dec 2018 by the UW Provost to review the PC status. The PC task force completed its analysis and the Provost's office is reviewing the recommendations for future sustainability and support. The task force identified an opportunity to shift the reporting structure as well as determined it was time to rotate the PI for the P51 grant. So effective May 2020, the PC reports directly into the Office of Research for University of Washington support, the Director of the PC reports to the Vice Provost, and the PI for the P51 is the Dean of the School of Pharmacy.
  - The PC staff, which include personnel involved in daily animal care, behavioral enrichment, clinical care, research support and administrative support, are dedicated to ensuring animal welfare and to supporting important biomedical research. Unfortunately, despite everyone's efforts, adverse events happen and they are reported to the IACUC as the PC is committed to openness and transparency. What doesn't get reported is all of the things that the staff are doing right, and that every day through all sorts of weather and throughout this pandemic, the staff have shown up to work and proven their dedication to the animals and their care. The PC staff is also committed to pursuing opportunities for continual improvement.
- Adverse events:
  - At the April 16, 2020 IACUC meeting it was reported that a large male Macaque broke the locks on his cage. The NHP had to be temporarily single housed in the room until a cage could be modified so that he and his social partner could be housed together again. This has been completed and the NHP is now housed with his social partner.
  - At the May 21, 2020 IACUC meeting it was reported that a female NHP had been in a trapping run and without water for more than 12 hours. There has been a thorough investigation of the incident and we do not have more information on why the animal was in the trapping run. The PC has worked with Human Resources on personnel actions regarding accountability for not verifying where the animal was before personnel departed for the day. As stated at the May 2020 IACUC meeting, water bottles are being supplied on the trapping runs to ensure that animals have access to water.  
*The committee asked if they will be informed of the actions taken by HR on the responsible personnel. The Interim Director responded that it is a matter of personnel confidentiality and will therefore not be reported to the IACUC.*
  - New adverse event in AZ. The facility has pens where the animals are group housed. One of the pens was repaired and all of the locks were removed from the enclosure.

University of Washington  
July 16, 2020 IACUC Meeting Minutes

After completion of the repairs, the animals were moved back into the enclosure. A lock was inadvertently left off of the feeder box and the animals were able to remove the feeder box from the front of the cage. This left a small hole at the front of the pen and one of the juvenile animals was able to crawl out and climbed the mesh of an adjacent cage. The animal crossed the facility and climbed towards the top of another enclosure where the breeder male pulled his arm through the enclosure mesh. The juvenile sustained non-life-threatening injuries to multiple digits and the left arm. The husbandry technicians were able to separate the 2 animals and called veterinary staff immediately. All injuries received prompt veterinary attention with appropriate analgesia. Due to the extent of the injuries sustained to the arm, which were not immediately apparent and worsened over time, there was concern about recovery of the digits and the veterinary staff made the choice to amputate the arm 2 days later. The animal is recovering well and will be re-introduced to its social group in stages. Corrective Action: Whenever a cage is empty, locks will remain in place on the enclosure doors and feeders. Management and staff have reviewed protocols and procedures to ensure that all the steps are taken to check locks and were reminded to check all locks every time they enter or exit an enclosure. Extra locks are available in the ante-room.

**Reported to OLAW and USDA.**

- WaNPRC is currently working to improve our incident response and follow up plan. The PC has historically worked hard to establish a strong program of training and responsibility. The plan is to do a more thorough follow up with root cause analysis and incident tracking so that we can identify areas for improvement with on-boarding and continued training and awareness. The PC is working with the Attending Veterinarian and HR colleagues to ensure that processes and procedures put into place are in compliance and respectful of our staff and colleagues.

**Other Business**

- Semiannual Program Review - **BE**

*The OAW Assistant Director requests any suggestions and changes to the semiannual program review to be received by July 31<sup>st</sup>. Members will be asked to provide concurrence with signature before the report is sent to the Institutional Official.*

**Closing Business:**

The Meeting was brought to a close at 3:20 pm. The floor was opened to public comment.